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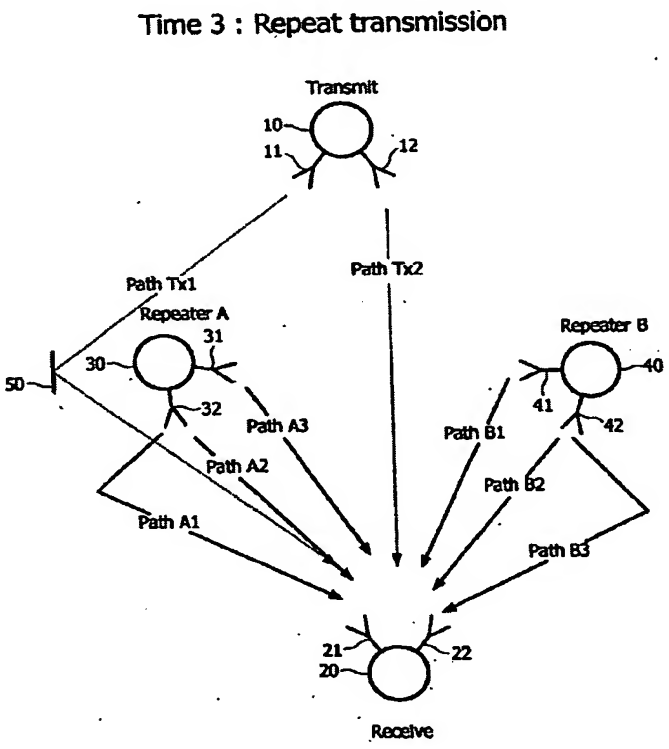
(54) Title: PACKET RETRANSMISSION FOR MIMO SYSTEMS USING MULTIPATH TRANSMISSION



(57) Abstract: A protocol for forwarding data packets over a network. An originating transmitter sends a data packet over the network to a destination receiver. The packet is forwarded by one or more repeaters within the network. The repeaters assume responsibility for originating re-transmissions of the packet if the packet is not correctly received by the destination receiver (eg. if a NACK signal is returned from the receiver or if no type of acknowledgement signal is returned from the receiver). Re-transmission of the packet by multiple repeaters effectively modifies the data paths by which the data packet travels to the receiver increasing probability that the packet gets through to the receiver. The transmitter may be configured not to respond to any NACK signals for packets it has sent, thereby transferring retransmission overhead and signalling overhead to the repeaters. This is of particular utility in networks where the originating transmitter is a battery-powered device and the repeaters are not power limited.

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